For each step within the segment defined by L_{new}, the Bottleneck Product object **720m** determines the distance D between that particular step and the bottleneck that terminate the segment. The VWIP Manager object **210m** calculates the probability function P(D) for the step based on the value of D relative to L_{100} as follows:

In the Claims

The following is a clean version of the entire set of pending Claims. In accordance with 37 CFR § 1.121 (c)(1)(ii), a marked up version of the Claims containing the newly introduced changes is included in Appendix A of this Response.

Please amend the Claims to conform to the following:

6. (Once Amended) The automated system recited in Claim 5, wherein the additional work comprises one or more product types.

7. (Once Amended) The automated system recited in Claim 5, wherein the work approaching the corresponding bottleneck workstation comprises one or more product types.

14. (New) A method of controlling work-in-process ("WIP"), comprising:
determining when an evaluation cycle should be invoked; and
performing the evaluation cycle, the performing the evaluation cycle further including:
identifying a bottleneck workstation;
calculating a WIP value representing the amount of work approaching the bottleneck
workstation;
determining whether the WIP value is projected to fall below a control limit during an
evaluation period; and
recommending, if the WIP value is projected to fall below the control limit during the
evaluation period, that a selected amount of additional work be released into the
manufacturing line.

15. (New) The method recited in Claim 14 further comprises:
selecting one or more product types for the selected amount of additional work.

16. (New) The method recited in Claim 14, wherein:

identifying a bottleneck workstation further comprises identifying one or more of a plurality of bottleneck workstations.

17.   (New) The method recited in Claim 14, wherein:
calculating a WIP value representing the amount of work approaching the bottleneck workstation further comprises calculating a WIP value for each of a plurality of bottleneck workstations, wherein each of the WIP values represents work approaching the corresponding bottleneck workstation.

18.   (New) The method recited in Claim 14 wherein:
determining whether the WIP value is projected to fall below a control limit during an evaluation period further comprises determining whether any of a plurality of WIP values is projected to fall below the control limit during the evaluation period.

19.   (New) The method recited in Claim 14, wherein:
recommending, if the WIP value is projected to fall below the control limit during the evaluation period, that a selected amount of additional work be selected for the bottleneck workstation further comprises recommending, if the WIP value associated with each of a plurality of bottleneck workstations is projected to fall below the control limit during the evaluation period, that a selected amount of additional work be released into the manufacturing line.

20.   (New) A manufacturing facility, comprising:
a bottleneck workstation; and
an automated system that monitors work-in-process ("WIP");
wherein the automated system includes:
a software object that determines when an evaluation cycle should be invoked; and
a recommendation wakeup listener object that performs the evaluation cycle, the
    recommendation wakeup listener object further including:
    a software object that identifies the bottleneck workstation;
    a software object that calculates a WIP value representing the amount of work
        approaching the bottleneck workstation;
    a software object that determines whether the WIP value is projected to fall below
        a control limit during an evaluation period; and

a software object that recommends, if the WIP value is projected to fall below the control limit during the evaluation period, that a selected amount of additional work be released into the manufacturing line.

21.   (New) The manufacturing facility recited in Claim 20, wherein the work approaching the bottleneck workstation comprises one or more product types.

22.   (New) The manufacturing facility recited in Claim 20, wherein the additional work comprises one or more product types.

23.   (New) The manufacturing facility recited in Claim 20, wherein the automated system further comprises:

a software object that selects one or more product types for the selected amount of additional work.

24.   (New) A manufacturing facility, comprising:

a plurality of bottleneck workstations;

a software object that determines when an evaluation cycle should be invoked; and

a recommendation wakeup listener object that performs the evaluation cycle, the recommendation wakeup listener object further including:

an object that identifies the plurality of bottleneck workstations;

an object that calculates a WIP value for each of the plurality of bottleneck workstations, wherein each of the WIP values represents the amount of work approaching the corresponding bottleneck workstation ;

an object that determines, for each WIP value, whether the WIP value is projected to fall below a control limit during an evaluation period; and

an object that recommends, if any of the WIP values are projected to fall below the control limit during the evaluation period, that a selected amount of additional work be released into the manufacturing line.

25.   (New) The manufacturing facility recited in Claim 24, wherein the additional work comprises one or more product types.

26.   (New) The manufacturing facility recited in Claim 24, wherein the work approaching the corresponding bottleneck workstation comprises one or more product types.